

AVIATION

The Oldest American Aeronautical Magazine

MARCH 3, 1924

Issued Weekly

PRICE 10 CENTS



The aircraft carrier Langley with the Fleet during the maneuvers in the Caribbean

VOLUME
XVI

NUMBER
9

SPECIAL FEATURES

BALTIMORE GETS SCHNEIDER RACE
RELATION OF AIR POWER TO SEA POWER
THE CURTISS EXHIBITION COMPANY IN 1923
PROGRAM OF THE DAYTON INTERNATIONAL AIR MEET

THE GARDNER, MOFFAT CO., INC.

HIGHLAND, N. Y.

225 FOURTH AVENUE, NEW YORK

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MARCH 5, 1924

AVIATION

VOL. XVI NO. 9

Published every Monday

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AVIATION

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In "The Outline of History," H. G. Wells writes that "by 1909 the aeroplane was available for human locomotion." It is an interesting coincidence that since 1909 exactly, The Glenn L. Martin Company has been building quality aircraft.

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AVIATION

Vol. XVI

MARCH 3, 1924

No. 9

The Site for the Engineering Division

MUCH and more is the question of the location of a new McCook Field being discussed. That it is settled that it should be at Dayton is not, as far as we can learn, a unanimous view even in the Air Service.

As has been pointed out, the raising of \$400,000 by the citizens of Dayton for a site where the Chief of Air Service has stated \$1,000,000 would be spent for an adequate engineering station, and allowing an annual government payroll of \$2,000,000, could probably be duplicated in several cities were the prospective made to them. Nevertheless, Dayton does occupy a strategic position as a labor market. As twelve thousand of its citizens were engaged as aircraft constructors during the war, and the city is the home of many manufacturing plants receiving highly skilled mechanics, it affords McCook Field a choice of labor that is most favorable.

The real problem of the location of Dayton is the one left by the Air Service in securing information necessary for its contractual negotiations, and by the contractors who spend such a large part of their time on travel between their factories, Washington and Dayton. This is another efficient argument and the fact that the site of McCook Field was selected to meet special war conditions should not be troubling if it is found by experience that another site would meet present conditions more satisfactorily.

That a site located away in Washington would have great advantages is generally conceded. When the moving of McCook Field was considered a few years ago, Eastern locations were visited with the object of investigating more desirable sites than Dayton could offer. Several sites now owned by the government were considered. The advantageous location of Aerostatic Flying Ground and its proximity to Washington is an example of a well located experimental station.

Before a final decision is reached by Congress on the proposed, and particularly before the October conference in Dayton, it would be in order to investigate whether or not other cities, located closer Washington, might not, when informed of the advantages, make offers that would be equal or superior to the Dayton place.

Rickenbacker Hits Subsidies

WHENEVER any Air Mail expressman or opinion on aviation, it deserves the consideration due him as one of the most noted fliers in the world.

His views about subsidies, which will be found in the news, are basically correct to a large extent and undoubtedly the future will confirm his position. But his reasoning appears to be somewhat colored by the present prosperous condition of the automobile business.

Taking up his first point, that the most useful implement

of war was not originally designed for the purpose, we are bound to feel that if we had not had especially designed artillery for the movement of guns and had been forced to rely on commercial vehicles we would not have gone far in the war of 1914-18. In a similar way, had we had to rely on commercial types for lighting up sea, the results would have been dismal. For the same reason we do not believe that aircraft built for commercial use, where efficiency, safety and economy are the main requirements, can be used with success against an enemy equipped with aircraft designed for military and naval use, where maximum performance regardless of cost is the watchword.

When Captain Endresdorfer advocates the withdrawal of all government support from the aircraft industry and tends to give the impression that prospective aircraft contractors "need the tough gait themselves while those in the bidding ground search," he underlines a very important knowledge of the present status of so-called government support, besides creating an unfair impression that a few of the aircraft manufacturers are granted with government orders. The Endresdorfer investigation will show that not one of our contractors has any orders that can keep him busy to full capacity or enable him to sit idly about his works and know that his factory will be at work on his orders.

Our position regarding civilian air routes has always been that air transport routes should receive the same general recognition that railroads, marine shipping and automobiles have received. The government pays for the routes and roads on which the automobile runs. It regulates traffic, provides safety devices and lights. Shipping has its harbors dredged, its light houses and its coast guard protection. In the same way air transportation should expect the air routes and air terminals to have similar government aids.

Five Years of Air Mail

THIS statistical summary of the Air Mail Service covering the years from 1919 to 1923 inclusive, appearing elsewhere in this issue, gives what is probably the most complete and continuous record of the operation of commercial airmail service. Over thirty thousand trips have been made covering over seven million miles. The average percentage of performance, 93.85, covering as it does several unfortunate experimental periods, and last year's percentage of performance of 96.59 will always be to the credit of the management.

To have achieved the results that have been obtained at the expenditure of approximately six million dollars also indicates that the operation has been efficient and economical. It may be noted at the site visitors of government ownership and operation, which has not only been a success, but has rendered a great service to aeronautics throughout the world by giving convincing proof of the regularity of airway service.

The International Airplane Races in Dayton

By H. W. KARR

Assistant to President of the National Aeronautic Association

Provision for nearly four dozen national prize money was offered at St. Louis last year and for twelve major aerialists events it made in the complete program for the 1924 International Air Races at Dayton, Ohio, Oct. 2, 3 and 4, which has been drawn up by the Dayton chapter, N.A.A., and approved by Frederick E. Patterson, president of the Commercial Committee of the association. Mr. Patterson gave his official sanction to the card before sailing for Europe Saturday, Feb. 16, where he will endeavor to interest England, France and Italy in taking part in the Pulitzer high speed race this fall.

Total Prize Money: \$43,750

The total amount of prizes to be awarded in cash and Liberty bonds is \$43,750. This will be typical of the nature and variety of national events in a motor race that will make no concession to the contestants from a financial as well as sporting standpoint.

By increasing the prize money \$10,000 this year over the total of 1923, the executive committee of the Dayton chapter has invited many more manufacturers and aviation in the country to enter their planes in the contest, as well as to increase the number of contests from a financial as well as sporting standpoint.

The complete program with the prizes and other information is outlined below.

Twelve Major Events

The intention is to attract a varied field of entries to compete for prizes to be awarded in the following manner: a combination of high-speed and speed endurance, a race, however, having a reserve to accomplish rules incapable of being satisfactorily applied. For this purpose there will be a series of contests comprising twelve distinct major events, as one or another of which there will be an opportunity for practically every type of airplane to compete. Some additional minor contests under consideration, but will not be announced until later.

The complete program with the prizes and other information is outlined below.

On to Dayton Races

Event No. 1 Sept. 29 to Oct. 1—"On to Dayton" race for Dayton Chapter N.A.A. trophy. (Civilians only). Competitors will be given two, three, four, five, six or more hours to travel from Wilmette, Illinois, to Dayton, Ohio. Flights may start any day after Sept. 29 and the time limit must be made after 8 a. m. Sept. 24 and before midnight Oct. 1. Prize will be awarded on averaged speed based on total elapsed time, distance covered and passengers carried.

PRIZES

\$5,000 in Liberty Bonds

First prize	.....	\$5,000 in Liberty bonds
Second prize	.....	500 in Liberty bonds
Third prize	.....	500 in Liberty bonds
Fourth prize	.....	500 in Liberty bonds
Fifth prize	.....	500 in Liberty bonds
Sixth prize	.....	200 in Liberty bonds
Seventh prize	.....	150 in Liberty bonds
Eighth prize	.....	100 in Liberty bonds
Ninth prize	.....	50 in Liberty bonds

Light Plane Race

Event No. 2 Thursday, Oct. 2, 10:00 a. m.—From-fit-all race for ten-passenger low horsepower airplanes. (Civilians only). Competing planes must have a place displacement of 515 cu. in. or less and carry a total load of 300 lbs. This race will be won around a closed course of 15 mi.

PRIZES

\$5,000 in Liberty Bonds

First prize	.....	\$5,000 in Liberty bonds
Second prize	.....	600 in Liberty bonds
Third prize	.....	600 in Liberty bonds
Fourth prize	.....	600 in Liberty bonds
Fifth prize	.....	600 in Liberty bonds
Sixth prize	.....	300 in Liberty bonds
Seventh prize	.....	250 in Liberty bonds
Eighth prize	.....	150 in Liberty bonds
Ninth prize	.....	100 in Liberty bonds
Tenth prize	.....	50 in Liberty bonds

Race for Two, Three and Four Seats

Event No. 3 Thursday, Oct. 2, 1:15 p. m.—Freight-all race for two, three or four-place airplanes. (Civilians only). Race will be won around closed course of 15 mi. for airplanes having total gross weight displacement of 600 cu. in. or less.

PRIZES

\$5,000 in Liberty Bonds

First prize	.....	\$5,000 in Liberty bonds
Second prize	.....	700 in Liberty bonds
Third prize	.....	600 in Liberty bonds
Fourth prize	.....	600 in Liberty bonds
Fifth prize	.....	600 in Liberty bonds
Sixth prize	.....	300 in Liberty bonds

Date Limit for Entries

Entry blanks have been readyed by the Dayton chapter and will be received until Sept. 1. A 25 per cent penalty will be assessed for entries that come in after Sept. 1 and up to Sept. 8. Those received my Sept. 15 will be charged an entry fee of 50 per cent.

The forwarded to the programs and entry blanks reader. These will be forwarded to the manufacturers for the purpose of holding the 1924 National Air Races, including the fifth annual contest for the Pulitzer Trophy. It is in order to keep pace with the increasing interest in Dayton and to stimulate further the development of commercial aviation,

March 3, 1924

AVIATION

Observation Plane Race

Event No. 4 Thursday, Oct. 2, 2:30 p. m.—Race for observation type (Two-place) airplanes, for Liberty Engines. Bellanca trophy (civilian and military). Two-plane around a closed course of 15 mi. The competing planes must have an open cockpit, a maximum of 600 cu. in. and a total wing area greater than 500 sq. ft.

PRIZES

\$5,000 in Liberty Bonds

First prize	.....	\$5,000 in Liberty bonds
Second prize	.....	600 in Liberty bonds
Third prize	.....	600 in Liberty bonds
Fourth prize	.....	600 in Liberty bonds
Fifth prize	.....	600 in Liberty bonds

Model Airplane Contest

Event No. 5 Friday, Oct. 3, 10:00 a. m.—Duration race for model airplanes for Melville model trophy. For members of the Junior Flying League, H.L.A. Models will be held around a closed course of 15 mi.

PRIZES

\$250 in Cash

First prize	.....	\$250 in Cash
Second prize	.....	200 in Cash
Third prize	.....	150 in Cash
Fourth prize	.....	100 in Cash
Fifth prize	.....	50 in Cash

Light Commercial Plane Race

Event No. 6 Friday, Oct. 3, 11:30 a. m.—Light commercial speed and efficiency race for Aviation Country Club of Detroit trophy. (Civilians only). Flight times around a closed course of 15 mi.

PRIZES

\$4,000 in Liberty Bonds

First prize	.....	\$4,000 in Liberty Bonds
Second prize	.....	700 in Liberty bonds
Third prize	.....	500 in Liberty bonds
Fourth prize	.....	500 in Liberty bonds
Fifth prize	.....	300 in Liberty bonds
Sixth prize	.....	200 in Liberty bonds
Seventh prize	.....	150 in Liberty bonds
Eighth prize	.....	100 in Liberty bonds

Light Plane Race

Event No. 7 Friday, Oct. 3, 2:30 p. m.—Light airplanes for Dayton Daily News trophy for

PRIZES

\$2,000 in Liberty Bonds

First prize	.....	\$2,000 in Liberty bonds
Second prize	.....	700 in Liberty bonds
Third prize	.....	500 in Liberty bonds

Large Capacity Planes

Event No. 8 Friday, Oct. 3, 2:45 p. m.—Race for large capacity airplanes for Dayton Chamber of Commerce trophy. Civilian and military. Ships with open cockpit, less than 50 cu. in. and capacity of carrying a load of 5,000 lbs. or over. Five times around a closed course of 15 mi.

PRIZES

\$2,000 in Liberty Bonds

First prize	.....	\$2,000 in Liberty bonds
Second prize	.....	1,000 in Liberty bonds
Third prize	.....	700 in Liberty bonds
Fourth prize	.....	500 in Liberty bonds
Fifth prize	.....	300 in Liberty bonds

Air Mail Trophy Race

Event No. 9 Saturday, Oct. 4, 11:30 a. m.—Air mail planes for Detroit News Air Mail trophy. U. S. Air Mail planes. Six times around a closed course of 30.67 mi. (50 km.)

PRIZES

\$10,000 in Liberty Bonds

First prize	.....	\$10,000 in Liberty bonds
Second prize	.....	1,000 in Liberty bonds
Third prize	.....	500 in Liberty bonds
Fourth prize	.....	400 in Liberty bonds
Fifth prize	.....	300 in Liberty bonds
Sixth prize	.....	200 in Liberty bonds

Efficiency Race for Light Planes

Event No. 10 Saturday, Oct. 4, 2:30 p. m.—Speed and efficiency race for light airplanes. Civilians only.

PRIZES

\$5,000 in Liberty Bonds

First prize	.....	\$5,000 in Liberty bonds
Second prize	.....	1,000 in Liberty bonds
Third prize	.....	500 in Liberty bonds
Fourth prize	.....	400 in Liberty bonds
Fifth prize	.....	300 in Liberty bonds

Mitchell Trophy Race

Event No. 11 Saturday, Oct. 4, 2:30 p. m.—Race for speed type planes for Reg. Gen. William A. Mitchell trophy. Military only. Four times around closed course of 30.67 mi. (50 km.)

PRIZES

\$10,000 in Liberty Bonds

First prize	.....	\$10,000 in Liberty bonds
Second prize	.....	2,000 in Liberty bonds
Third prize	.....	1,000 in Liberty bonds
Fourth prize	.....	1,000 in Liberty bonds

Pulitzer Trophy Race

Event No. 12 Saturday, Oct. 4, 2:30 p. m.—High speed planes for Pulitzer trophy. Civilians and military. Competing planes to have air speed greater than 175 mi./hr., as tested for start of race, and sailing speed not to exceed 75 mi./hr. Four times around closed course of 30.67 mi. (50 km.)

PRIZES

\$20,000 in Liberty Bonds

First prize	.....	\$20,000 in Liberty bonds
Second prize	.....	2,000 in Liberty bonds
Third prize	.....	1,000 in Liberty bonds
Fourth prize	.....	1,000 in Liberty bonds

Editor's Note.—The technical features of these races will be fully explained in a coming issue of AVIATION.

Rickenbacker Opposes Subsidies

Capt. E. V. Rickenbacker, who is one of the staunchest believers in the commercial future of aviation, makes the assertion that aircraft will never become a commercial proposition with "all kinds of a subsidy or other government financial support and engineering assistance." says Capt. Rickenbacker, adding that is the inevitable adjunct to centralized financial aid.

"It has been proved that while government money and centralized cash may be aids to design an airplane, yet the same factors lack the necessary knowledge and capacity to manufacture it. Army and Navy engineers can design an airplane that is available, as fast tool, for war purposes, but if we become involved in a big war tomorrow, such a type of airplane would be useless, for the reason that we would not have the capacity to manufacture and produce it in such volume as to make it of any real value. The last war proved that the most useful implements of war were not originally designed or intended for that purpose at all, but for commercial and industrial service. They were already being made in vast quantities, however, and thought not ideal, could be adapted to war uses. Ambulances and trucks are good examples."

"Our industry has any right to exist or can exist only as the result of competition. The great feature of competition is that the emblematic war never takes up by government, gives government aid, nor keeps it by government suggestion or red tape. Consequently, it has become the world's largest industry."

"Let's look the facts in the face. The advance of government support for aviation constantly refer to it as an 'infant industry.' Now, truth to tell, it is nothing of the kind. The first aeronautics that was ever made in the world was the 'caravan' Oldsmobile,

was made in 1901. The Wright Brothers made their first flights in 1903—sixty years later. So you see the world's greatest industry is only half as old as the so-called "modern" aircraft industry. The real truth is that, while it is true that it has always been fed on "paper," every aircraft in existence, itself, is developed to its own needs or an appetite for solid food.

Europe's Early Leadership

"Like many other people, I had been led to believe that the reason Europe originally led us in strength was due to government support of the industry there. On my latest trip to Europe I studied that matter thoroughly and I discovered many things that astonished me as much as they enlightened me. First of all, I found that the aircraft industry leads the world in aircraft. Practically all countries have aircraft industries using American airplanes powered with American-built engines. France, Germany, England and Italy have not programmed one since the end of the war.

"We hear a lot about commercial aviation in Europe but in a matter of fact nothing of the kind exists. Nothing in commercial that does not compete with our own finds its acceptance. No form of transportation that cannot live off its own resources can hope to succeed. The only possible one can be called truly commercial or truly international."

The only way that European Air Lines operate today is as government subsidies—the fares they charge are merely a means of selecting those who may be favored with flight. Those who cannot pay something, of course, never ride. "A modern air as we see it ascribes to aviation. Rehearsal of the manner of flying, initiative, dashers and entire passengers come the various forms of adventure. These are really not fit to fly. They are absolute models made for our service and not at all suited to passenger-carrying on a safe or profitable basis.

"If you look for the real origin and early expression of aviation in Europe you will find it in the mission of the countries of that land of youthful young men—"Admirals." The son of a wealthy man, General Foch for example, is considered disgraced if he goes to work. Any man of any aspiration is considered inherently high birth and breed. Naturally he comes from some and seeks for some outlet to his natural youthful energy and enterprise. This usually takes the form of adventure. It may be tiger-hunting in Africa, elephant hunting in Africa or experimenting with an automobile. It is a remarkable fact that Hubert Latham, one of the world leaders of the early aviators, who was killed by a buffalo in Africa in one of these excursions, who was not indulging in other forms of adventure. As long as it can within the ability of these young men (and some of them became brilliant engineers) in the short span of their sensational Europe led in aeronautics.

"American youth take life more seriously. American fathers from time past may seek extravagant expenditure of money. We may do it, too. But commercial possibilities and some practical necessities do we in this country take up any new device. But when we do, we have a habit of excelling just because we are practical."

Future of Aircraft Industry

"That the aircraft industry will develop and become one of the world's greatest industries is my firm belief. That it will not do so as long as there is any government support or even hope at it, I am equally certain. The very idea of it is alien to the Americans' mind. That was proven in the recent campaign for over a ship subsidy. Shipping is supposed to be a natural and necessary outlet of the economy of Europe. The greater the number of nations that are engaged in shipping revenue the poorer pay and the worse treatment of our skilled workers in the world.

"Americans are not interested in the development of any industry that is not related to the welfare only of a few executives. It must perform a definite contribution to the well-being of many, if it would justify its place in the country. In the very nature of things a robbery contributes

only to a forced few and serves to throttle industry by destroying initiative and robbing the spirit of competition. We will have an aircraft industry in this country just so soon as the field is thrown wide open to competition and there is another favorite among us.

"The result of all experience is that, as far as I can find, a few have learned how to build from funds and those have produced nothing that justified existence. Those that might enter the field on a strength basis have found themselves at a disadvantage because anything they might produce would have to compete with the sponsored product of several others. Subsidies are never impartial. They are not vested with that idea in view. Always those nearest the trough dominate while those in the background starve and give themselves to the fleas.

"I believe it is futile to try the American way to stimulate any industry not fit to live. Taxes are already a strangle hold. The sooner we quit laying and thinking in terms of subsidies the sooner will we see features turning out appearance in vast quantities and at prices within the reach of everyone, just as automobiles are produced today.

"The automobile had its racing era and speed cars performed part in developing standard designs. Aviation has gone along the same road. The first experiments were not mere to learn the knowledge, experience and the profit to useful purpose, which is to say the production of commercial airplanes on a purely commercial basis. Then, should we again come upon us we would have millions of machines that would be adapted to war needs—and millions more could easily make it plants already tested up and operating on a revenue basis—in the automobile."

The Light Plane Needs an Engine

Editorial Article

There is not one who can possibly conceive around which to build up the "light airplane" industry, and that is, for some foregoed manufacturers to produce a series of low-power engine designs at successive prices. These low-power engines must be light weight, economical, reliable and designed to blend easily with modern airplane construction.

Presently the most popular air cooled, two engine series has around the most airframe but any type of a well balanced and reliable engine is good. A small radial engine, however, should have no less than three cylinders. And in cases of over twenty-five horsepower should have more than three cylinders, for less reasons, first, to produce smoother torque with less vibration; and second, in case one cylinder ceases to fire, that the percentage of the drop in horsepower will not be great, as in the case of a three cylinder engine it would be twice as bad, the horsepower dropping to one-half of the maximum.

Below is a series of engines that ought to provide the "light airplane" industry with a foundation to build upon.

25 hp	3.4 cyl.	75 lbs.	scroups
50 "	5.6 "	125 "	
60 "	7.8 "	175 "	

These engines should be provided with a hand crank for starting the engine from the ground. And care should be taken to the design, that the engine will not be liable to be folded to carry it clear of the fuselage. Also, all water cooled engines should be equipped with a radiator, fusing a part of and bolted to the engine.

Yet, irrespective of the design, the one thing that the majority feels is good, reliable and inexpensive low power engines around which to build our "sport planes."

A WELLINGTON COOK,
Washington, D. C., Feb. 20, 1931.

New British Light Plane Engine

Burney and Blashfield of Brooklands, England, the makers of the Burney monoplane engine which performed so well in the light plane meet at Lympne last October, have in course of construction a three cylinder radial engine of 1100 cu. cm. capacity which is specially designed for this year's two smaller light plane competitions initiated by the British Air Ministry.

Relation of Air Power to Sea Power *

By CAPTAIN DUDLEY W. KNOX, U.S.N.

AVIATION has received a enlightening copy of the following speech delivered to the Director of Coasts Department, Reserve Officers' Association of the United States at Washington, D. C., Dec. 6, 1925. It is a kind of propaganda that AVIATION has fought against so often. It naval officers would have felt seriously and without distinction in Admiral Moffett and the members of his staff do. AVIATION would not comprise novel considerations in our development, nor would it represent such as that of Captain McNease that are published recently, and that of Captain Keane pointed herein, are made public, it must be evident that aircraft development work for our defense is not receiving the whole-hearted endorsement that it should.

AVIATION readers will recognize the consistency of many of Captain Keane's statements—such as "Two hundred Boring bombers will cost \$50,000,000"; "Four hundred by 10,000 pound bombs are required to put a battleship temporarily out of action"; "The American bomber experiments against leadership are useless"; "The aircraft carrier experiments against leadership are useless, reached at about 11 per cent direct hit made from an altitude of about 31,000 ft." "The British Aeronautics experiments, however, showed that with a moving target averaging only 2 per cent of hits may be expected from an altitude of about 5,000 ft." "We see that the air power submarine for such duty (battleship) would be ten times as expensive." General Patrick has stated that in the recent experiment against the Virginia and the New Jersey some of the striking planes flew 170 m. passing through these monitors and consuming two or three hours' time before they were able to reach the living point." We are not attempting to reply to this article. We will leave that to others, but we believe that such attacks on aircraft should be repaid by those who have been entrusted with the cause of aircraft progress.—EDITOR.

I might very easily devote the entire time available for this talk to any one of several of the existing outstanding needs of the Navy.

For example, we are not keeping up the rate of naval strength agreed upon for the United States at the Washington Conference. We have already fallen so far behind the other nations that our Navy is only half as powerful as it was proposed to be. Our battleship force consisted of battleships to the type of which our fleet itself is now reduced to the fact that their numbers are moderated while ours are not. We need about 50 per cent more tonnage than is in the Navy today of the Treaty Navy is to be properly maintained on a peace basis. To approximate our rate of strength in auxiliary ships we should have at least 15 more high speed auxiliaries of about 30,000 tons each, and 13 more large auxiliaries of long endurance rating.

There are also many other types of the largest class of auxiliaries and of the entire variety of your Navy is to properly safeguard the nation's welfare and interests, and to be presented as an important statement of world power. But I wish no call to your special attention toward certain questions pertaining to Aviation which the country looks to the Army and Navy to settle among themselves, and in which the opinions of these officers should and will have much weight.

Independent Air Force

The first question to be considered is whether Aviation should be taken from the sequence and control of the services and be turned into an independent Air Force.

Much propaganda has been directed especially against Naval Aviation reasoning as a part of the Navy. For instance the Washington Post said editorially in its issue of Jan. 1, 1931:

"October 20th, 'Airships can sink battleships. The only known method of preventing them from sinking battleships is to prevent them from flying over ships. No American battleship carrier will be safe in war unless an American airship flies over it.' Now while this statement is grossly exaggerated, it contains an important element of truth. Naval defense is probably the best, though by no means the only, method of protection against aerial attack. The Post goes on to advise very properly that, principally on this account, Naval Aviation should be taken from the Navy.

Such logic is so palpably absurd as to create a suspicion that the writer of it deliberately ignored logic. Dependence of the Navy upon assistance in the air is not a valid reason for removing Naval Aviation from the control, but a valid reason for reducing the resources. The greater the use of air power to the Navy the greater the reason for the Navy controlling its own armament. Can anyone here imagine separating from the control of Great or Paraguay or Peruvia, or Shan, or Poch, or Jaffico, some item of power indispensable to their success?

Air Power Indispensable to Fleets

Certainly, today air power is absolutely indispensable to the maintenance of naval supremacy. Present American Naval Aviation will not only reduce the American fleet losses against aerial attack, but will also greatly increase its fighting power against hostile fleets. Airplane spotting enables ships to do accurate shooting at targets whose shells are usually out of sight below the horizon. Airplane scouting greatly facilitates the obtaining of complete and timely information. The vital importance of naval air power is well known and need expatiate. I do not doubt you have read this statement. In the future a date will designate Naval Aviation to suggest it will be only half a fleet, and will be an easy victim for an enemy having power as ships which are properly supported by their own air units.

Let us have no more of the loose thinking and false logic such as was illustrated above by writer from the Washington Post. Those patriotic writers in their zeal of worry, the ones who are persons in their opinions to give a distorted and dangerous view of this war and highly valuable arm of national defense. Aviation is now so indispensable to successful operations on both land and sea that each service must retain absolute control of its own aerial forces.

The British Situation

The adhesion of an English Air Force to the assembly office point to the example which the British have set. They overlook the fact that England's geographical situation is in reverse of our own. She is separated by hundreds more than a very large, greatly superior air force on the mainland, on which there is no parallel in the United States. In taking Naval Aviation away from the Royal Navy, they are not only depriving themselves of an important arm for the main emphasis and sustained products from her while maritime supremacy. The result has been that, in spite of the critical resources of southern England to an attack, and after several years practical experience with an Independent Air Force, Britain has given back the virtues omitted of everything pertaining to the operations of Naval Aviation to the Navy. Should we follow her in this fatal mistake? If we do, we shall have to fall back into the old, long and costly methods of Naval control. None but the Navy can properly plan and sustain the operations of Naval Aviation. The two cannot be unseparated.

The reconditioning of England has left the production of all aircraft, including naval types, consolidated under the jurisdiction of the Royal Air Force. We are not disposed to quarrel with the effort being made to do the best for our soldiers and our production. Perhaps it would be desirable if in considering the matter it should be remembered that

*Extracts delivered in the Director of Coasts Department, Reserve Officers' Association.

Schneider Cup Race at Baltimore, Oct. 24-25

N.A.A. Issues General Regulations of International Contest

The Flying Club of Baltimore has received preliminary sanction to stage the Jungman-Schneider International Biplane Race. The dates chosen are Oct. 24-25.

On Oct. 24 there will be trials, one at 10 a. m., and one at 2:45 p. m., for which \$1000 is premium. There will be awards for the fastest in addition to silver cups. On the morning of Oct. 25, at 10:30 a. m., the Navigability & Seaworthy Test for Schneider Cup contestants will be held, and at 2:45 p. m., Oct. 25, the Schneider Cup will be contested.

The Flying Club of Baltimore has made a contract with the United Hardware & Electric Co., which owns Bay Shore Park on the Chesapeake Bay, for the use of this property as the racing station. The other racing point will be at Gibson Island and at Hunting Field Point on the eastern shore of Maryland.

The Racing Course

The course will be 50 km. as length, in the form of an almost equilateral triangle, which the Schneider Cup contestants must cover seven times, making a total distance of 350 km. (219 mi.) total. Prizes will be made at Bay Shore in honor of local racing planes, not the Schneider Cup contestants, and premiums for flying and winning mechanical personnel will be made.

The Flying Club of Baltimore will take care of three motor boats, plus two 100-hp. gasoline cars from during the entire race in Baltimore. In addition, the Southern Hotel or Baltimore will provide quarters for the pilots. The restaurant at Bay Shore will be used for sleeping and living quarters for the contestants and it will be open temporary operating the racing purposes.

Following are the main points of the general regulations for the 1931 Schneider Cup Race, as drawn up by the Contest Committee of the National Aeromarine Association.

Navigability and Watertightness Test

This demanding trial will begin with a navigability test and be followed by watertightness tests. These two tests are intended to establish the seaworthiness of the aircraft.

Each machine must complete a course of five to 10 nautical miles over a flat, so as a creek, gulf, estuary, or bay, as decided by the Contest Committee.

For this test the pilot must take near the starting line, then run and continue the course, during which he must pass the line twice over a distance of one-half a nautical mile at a maximum speed of 10 knots, the knots of each of these distances being indicated by two buoys. The remainder of the course will be covered in flight. The pilot must, however, start again before completing the course and run over the finishing line.

The Contest Committee may allow a pilot who has been unsuccessful in this test to make a second and final attempt, after all pilots have had a first attempt.

Mowing and Repairs

After landing, based over the finishing line, the machine must be secured immediately to a firmly situated lifterhook, while all engine parts above the set line must remain on board. Any attempts leaving the machine during this period will be disallowed.

Two planes will be allowed during the mowing and watertightness tests. Except for changing the propeller, which is allowed, the machine must not undergo any modification between the short tests and the speed contest. It will be stamped or sealed to ensure this provision.

Speed Contest

Planes may be started all together or at intervals, as shall be decided by the Contest Committee. If the planes shall



The Schneider Cup—Seaplane Zeppelin flying the course

started at intervals the order of starting shall be drawn by lot and the hour of starting fixed by the Contest Committee.

The starting line must be crossed on the water, at which time there must be contact between the water and the principal float or floats supporting the machine. The finish line must be crossed in flight.

Planes need not leave the water until after crossing the starting line. Any plane so done is subject to disqualification.

Pilots are at liberty to have the assistance of motor or jet boats during a ten-minute period prior to the start, while in a reserved area, but all such boats must leave the racing area immediately after the starting signal. No cables, lines, or anchors, or any similar device may be used either by the pilot or their attendant staff.

Airplanes during the Speed Contest are allowed.

Repairs are permitted but must be carried out by the crew at the water by means of what is on board without removing any outside assistance. The machine may, however, make use of another motor or even power, but must not be used to move the plane.

Fuel replacements are not allowed, except from stores carried on board.

In the event of unfavorable weather the Contest Committee may postpone the contest as often as they think fit.

Each seaplane shall have a number assigned to it by the Contest Committee, which shall be painted on the bottom surface of the lower wing and on each side of the fuselage close to the wing, in characters as large and clear as possible. It shall have no other markings or letterings over twelve inches in height.

Entries Close April 1

Entries close on April 1, 1931. Names of pilots and their alternates and all entries at the office of the Contest Committee of the National Aeromarine Association, 2020 H Street, N. W., Washington, D. C., U. S. A., not later than thirty days prior to the contest.

Competing planes should preferably be shipped to the Flying Club of Baltimore via boat dockings at Baltimore.

March 5, 1931

AVIATION

A Historical Parallel

Quasi-Easy Opposites in Railway Mail Service

In the debate in the House of Representatives on the Air Mail, Representative C. William Brewster of Iowa brought up some interesting parallels between the opposition to the railroads carrying mail in the early days of the nation and the present attitude toward the Air Mail. He said:

"Two years ago I got an old history from the Post Office Department, entitled 'A History of the Railway Mail Service.' It was very interesting to me to find in that history that the same opposition to carrying the mail by railroads that we are giving to short aerial mail. The controversy then was, 'Are we going to have mail service?' The controversy now is, 'Are we going to have the transition from the stagecoach to the automobile? Now we have doubts about leaving the railroads for the airplane."

"It was also interesting in that history that I copied a few paragraphs from pages 27 and 28. This history was prepared in 1886. I have these paragraphs here and wish to read just a few of them in my talk. Speaking of that era in history, he said:

"At this time grave doubts were entertained as to whether the railway service could ever be made acceptable to the public on the department, and frequent threats are as record that the contractors will be compelled to the stage coaches. February 15, 1855, on account of many complaints of gross irregularity in this transportation of the newspaper mail between Philadelphia and Lancaster and Carlisle, the mail contractors were informed that unless certain improvements were made within a week of transportation by railroad would be cut off entirely. And you will be interested to know we double daily line of four-horse post coaches between Philadelphia and Lancaster."

"March 27, 1855, a letter from the department reveals the fact that the contractors, after having used the railroad from Baltimore to Frederick for some time, ask permission to resume their trips by stage coaches. On this request the Postmaster General gave the following information: 'The contractors will be paid no additional or otherwise, so that the road is opened to day first.'

"A letter addressed by the department, March 25, 1855, to James Beale, contractor, complains that 'The road from New York to Philadelphia, by railroad, is greatly bad, taking more than 13 hours from Jersey City.' This was hardly the case in the days of bad stages."

The situation is given to the contractor that a repetition of these evils will be suffered by directions from the department to abandon this mode of conveyance, and to resume to former route that it go back track the railway to the stagecoach.

Dated April 26, 1855, there is a paper on the department site which says that: "There have been two failures of the mail from beyond Philadelphia at this city in the course of the present week, occasioned, it is said, by accidents to the locomotives on the Andover & Concord Railroad." These se-

emergencies are probably occurring at this time and hence because the subject of railway mail service and air mail. That experience we have had, the administration of the railroad to the purpose of mail transportation is becoming every day more and more questionable. It is very apparent that it can not be relied on with that degree of certainty which is all important in the transmission of the mail, and without which disappointments occur to the public, and complaints are raised in the ears of the department from every quarter of the country."

"Then too, with regard to contracts, I find in this history that the early action of acceptance of proposals on whom whose railroads were in course of construction were, many of them, qualified by the phrase, 'on condition that in case my arrangement shall hereafter be made under the authority of Congress to carry the mail for the whole or any part of the route on railroad, then your contract to be canceled, or there shall be a new rate determined, as the case may be.'

"February 26, 1856, the moderator on motion between Argentina and Chilean mail to the effect of a contract with the railway company if he desires to do so. The letter notifying the contractor says: 'The Postmaster General will not object to your making a subcontract with the railroad company provided all the offices as supplied, and provided the expedition forwarded by the railroad receive no extra expense.'

"Everyone repeats itself. Our forefathers were afraid of the railway. Now we say of the airplane: 'Mr. Chairman, I thought that the airplane, although it might interest some people out in the country, why will be reading the Round of the proceedings here today.'

Napier Cub Passes Fifty Hour Test

The Napier Cub 1000-hp. aircraft engine has been officially accepted by the British Air Ministry after successfully passing the latter's standard 50 hr. endurance test. The test consists of five ten-hour runs of 90 per cent full power.

The engine is the largest power plant in the world that has passed a similar endurance test.

Preparing for New Altitude Record

The Napier Co. of France is experimenting with a new high altitude power plant, type 40, with which the firm proposes to make a new altitude record attempt. The plane is equipped with a 300-hp. Hispano-Suiza engine.

Czechoslovakian Aviation Budget

The aviation budget of Czechoslovakia for the year 1931 is 163,806,000 Czechoslovak crowns, an increase of 28,000,000 over our last year's estimate.



Wireless World

A French biplane fighter plane—The de Mors type 7A, which is fitted with two 75 hp. Azur engines. Span, 33 ft. Length, 17.5 ft. Wing area, 248 sq. ft. Weight empty, 889 lb. Weight loaded, 1409 lb. Full speed, 87 mph.

The ship serves as a flying scale model of the proposed transatlantic plane.

Regulations of National Balloon Race

San Antonio, Texas, April 23, 1924

The National Elimination Balloon Race for 1924, conducted under the auspices of the San Antonio Aeromarathon Association and the regulations of the Fédération Aéronautique Internationale, will be held on April 25, 1924, at Kelly Field, San Antonio, Tex. Following are the salient points of the regulations.

General Regulations

The race will be open to all persons qualified under the present regulations of the National Aeromarathon Association of the United States, using free balloons of the 2nd, 4th and 6th categories as so indicated in Article 25 of the F.A.I. regulations.

The race will be distance to be measured as the arc of a great circle between the starting and landing points, and also for the purpose of selecting contestants to represent the United States in the International Balloon Race of 1924.

The following cash prizes will be offered:

First Prize	\$1,000	Fourth Prize	\$500
Second Prize	\$800	Fifth Prize	\$200
Third Prize	\$600	Sixth Prize	\$100

A bonus of \$100.00 will be given to the pilot of each balloon starting in the race.

Balloons and their full equipment must be delivered in Kelly Field, San Antonio, Tex., not later than April 20. Those arriving after that date will be subject to disqualification at the discretion of the referee. All shipments must be clearly marked with the name of the owner and the words "National Balloon Race."

Contestants are expressly requested to seal their material in a single envelope and to send telegrams a week before the San Antonio Balloon Race Committee, enclosing thereon full details of shipment, such as air pressure and how sent.

Balloons will be inflated at Kelly Field.

Entrants

Entries for the Balloons Race shall be made, in accordance with the rules of the F.A.I., to the Race Executive, Mr. Col C. Collier, Air Officer, Fort Sam Houston, Tex.

Entries will be carried in the order of their receipt up to 1000 hours, March 15, at which hour from entries will be closed. Entries received between March 15 and 3000 hours March 20 will be penalized 10 per cent of their entry fee. Entries received after March 20 will only be accepted with the written consent of all other contestants, the approval of the Race Committee, and the written confirmation of the F.A.I. Headquarters.

Each entry shall be accompanied by a sum of \$100.00. This amount will be retained in whole or in part: (a) To contestants ready to start in the race (with the exception above noted); (b) To contestants who have been declared not admissible; (c) To the contestants whose entry has been eliminated by the drawing of lots or by reason of other circumstances.

Each request for entry shall also be accompanied by a detailed description of the entrant's balloon; that is, dimensions of envelope, cubic capacity and how calculated, fabric, type and size of valve.

Number of Entrants

The number of entrants is limited to ten and selection will be made in order of entries received. The number of names may be increased to not more than twelve, subject to the opinion of the Race Committee, the number of entrants and the preparation for properly inflating the balloons warranting increase, and if the recommendation of the Race Committee for such increase is approved by the Contest Committee of the National Aeromarathon Association.

The maximum number of balloons entered shall be five. The entrants will be forfeited by any contestant whose entry has been accepted and who fails to be ready for the

start. It may also be declared forfeited by the Referee or Race Committee for violation of rules.

The designated time for the start of the race will be 4 p.m., April 25, 1924. The hour of the start may be changed by the Race Committee at the request of a majority of the contestants.

The Race Committee reserves the right to postpone the start of the race to a later hour or date in case of adverse weather conditions or possible hold up due to the partial inflation with hydrogen gas.

Special Equipment

All contestants near base, in addition to their regular flying equipment, the following:

- (a) 50 ft. of sheet welding pipe with connecting sleeves.
- (b) 100 helmet bags for inflation.
- (c) Ground cloth.
- (d) A recording altimeter (barograph) which shall be set to record direction of the reference.

Contestants will be supplied with "Aeronautic Record," "Log of Flight," "Record of Final Landing," "Landing Certificate," and "Balloon Messages," gratis.

Hydrogen and natural gas will be supplied gratis to contestants. The Race Committee reserves the right to determine the quality and quantity of gas. The Race Committee will have special hydrogen stored under a competent officer to supervise the inflation of each balloon with its part of the load. Equipment for this part of the inflation will be furnished by the Race Committee. Crews will also be furnished to contestants to carry on the regular inflation with natural gas.

F.A.I. Rules in Force

The name of each balloon or crew shall be displayed on the balloons.

All pilots must be holders of an F.A.I. certificate and, in addition, the usual license as issued by the Contest Committee of the National Aeromarathon Association.

Sand ballast for each contestant will be provided by the Race Committee.

The attendance of contestants is particularly called to the 7th, 21st, 22nd, 23rd, 105th, 106th, 132d, 136, 139 and 210th of the F.A.I. General Headquarters.

Any contestant who deserts into the sea and is obliged to leave his boat to a boat may receive whatever is out of the sea without other penalty.

A balloon must land with the same number of passengers it started with.

A pilot landing without his basket is disqualified without other penalty.

Categories Admitted

According to the F.A.I. Headquarters, the three categories of balloons admitted at the National Balloon Race are the following:

1st category—164 to 2000 cu. m. (55,825 to 62,377 cu. ft.); 2nd category—1092 to 1596 cu. m. (38,412 to 54,905 cu. ft.); 3rd category—1092 to 2265 cu. m. (38,412 to 77,681 cu. ft.).

A variation of 5 per cent is allowed; consequently there can be considered as belonging to a given category, balloons exceeding by 5 per cent the minimum, or falling below by 5 per cent the maximum volume of that category. In these cases the competitor will be allowed to choose in which of the two categories he wishes to compete.

Small Italian Airship

The Italian Government airship factory at Varese di Valsassina, near Como, has under construction a new type small rigid airship called MR. Its capacity will be 26,000 cu. ft. and its length 350 ft. The engine will be an Anzani 40 hp.

The Curtiss Exhibition Company in 1923

By C. S. JONES

Manager, Curtiss Exhibition Company

The Curtiss Exhibition Co., of Garden City, N. Y., which handles the flying for the Curtiss Aeroplane and Motor Co., Inc., has had an interesting and successful year in its commercial flying career 1923.

Operating four Orions, three Cs Standards, and six 25Ps, the company flew another over 3400 hr. in 1923, covering approximately 125,000 mi. Ninety-two per cent of this was

to install the motor and this gave him a very pleasant course in construction and maintenance. Other courses were given in cross country flying, navigation, etc., and the student's knowledge was greatly improved in the fundamentals of flying, as well as in the use of the tools of the trade.

The principal difficulty encountered was the fact that students, upon completing their courses, were too anxious to



One of the C-6 Orions three-seaters operated by the Curtiss Exhibition Co.

and commenced flying. It is interesting to note the division and percentage of the various types of work.

Instruction	29 per cent
Aerial Photography	22 "
Flight Displays	19 "
Test and Control Solo	4 "
Special Work (involving police work, transportation of film and packages, etc.)	46 "

New Flight Training Plan

Considerable enthusiasm was displayed toward the new plan offered by the company for training students. A careful study of conditions showed that the present system, with its restrictions, gave rise to the war, in the belief that a student could not learn to fly, unless he could finance the purchase of a plane upon completion of his course; he was left without any means of continuing his flying without exceeding cost. This meant that the average young man who wished to follow up aviation could not afford to do so.

The Curtiss Exhibition Co., having on hand a surplus of 25s, conceived the idea of presenting these graduates with a 25s, loaned him, together with a flying course. Government sale of OK motors reduced the price to reasonable figures so that the student, at a relatively small cost, could afford to buy his own plane. At the same time, he could continue to practice flying at the same time, even necessary, by passenger, aerial mapping, aerial photography, etc. Thirty students were trained at the school in Garden City, in addition to those trained at Buffalo, N. Y., and Dallas, Tex., under this regular regime. Seven were given special instruction in flying only. Twenty Curtiss employees were placed under special arrangements for these men.

When a student enrolled in the school he was assigned a machine and he, under the direction of an instructor, supplied the latter for setting and fixing it up. Furthermore, he held

get back to their own houses to start operations and on several occasions students would practice flying on cross country flights before they had had private instruction. Several crashes of minor nature resulted. This led to the institution of a policy of attempting to get the student to spend an extra month in the field in which period he was encouraged to make cross country flights, so that gradually he became experienced enough to be able to fly to his residence home. In case a student did not feel that he could spend this extra month, an instructor was sent with him to where he arrived at his destination and the exact country experience obtained in this manner was of extreme value.

Aerial Photographic Work

While the company does not attempt to compete with the aerial photographic companies in the actual taking of pictures, it did handle the majority of the flying in the vicinity of New York for the larger companies, namely, Fairchild Aerial Camera Co., Hammon, Maxwell, Inc., and Underwood & Underwood. In the case of the Fairchild Company, whose organization was flying organization, the maps were loaned and the flying was done by Fairchild pilots, who were fully qualified. Underwood's took a copy of the Fairchild aerial map over attempted, and as reported by any officials of extreme value to the city. Maps were also made of various railroads, power lines, etc., as well as an assessment of various properties of cities within a radius of 400 mi. One remarkable job was done for Barnes G. Collier in Florida, 90 per cent of the work being over the Everglades and one portion to obtain by any other means.

Short rides composed the bulk of the passenger work in Garden City where the discontinued a previous year, New York, etc., attracted many tourists mainly from Brooklyn. There was a considerable amount of "local" "tad" work in points within a radius of 400 mi. of New York. A special

Inter-American Air Relations

In connection with the editorial "The International Air Conference" which appeared in our last issue, Advances in Aviation by the Pan American Union, it is to be noted that 261 delegations from 40 countries have sent the notice of meeting or designating the city in which the Inter-American Commercial Aviation Commission shall hold its sessions. No less than 50 of the interested governments appointed representatives on that Commission, which is to be established under a resolution adopted by the Fifth International Conference of American States held at Santiago, Chile, May 3, 1930.

The program reads as follows:

"The Fifth International Conference of American States resolved:

"To establish under the name of Inter-American Commercial Aviation Commission an inter-American technical commission to study the policy, laws, and regulations relating to commercial aviation, which shall be composed of not more than three delegates from each State, member of the Pan American Union, and the Commission will meet at the time and place which the Governing Board of the Pan American Union may determine."

"2. The Inter-American Commercial Aviation Commission shall draft a bill of laws and regulations, the adoption of which is to be recommended to all the American States, with respect to commercial aviation, the determination of aerial routes, the establishment of special customs procedures for aviation, and the determination of adequate landing places, all of which shall be referred, when passed, to the plenary session of the Conference.

"3. The outcome of the Inter-American Commercial Aviation Conference shall not pass over three months from the date of the first meeting. The conclusions of which it may serve, shall be presented to the Governing Board of the Pan American Union."

"4. The Governing Board of the Pan American Union shall prepare in the form of a Convention or Conventions, the conditions of the Inter-American Commercial Aviation Commission which will regulate the inter-American agreements, and shall submit same to the governments of the States belonging to the Pan American Union."

"5. The Inter-American Commercial Aviation Commission shall take into consideration in its deliberations the conditions already existing, in order to take advantage of same so far as possible, making the modifications demanded by the interests of commercial aviation, and the interests of the States belonging to the Pan American Union."

J. V. Martin Soak Struck from Records

Judge Frederick L. Baldwin of the District Appeals Court in Washington on Feb. 10 granted a motion to strike from the records at the circuit court No. 1, the damage suit for \$11,000,000 brought by Capt. James V. Martin of Gladys City, Okla., against twenty-eight corporations and forty-eight individuals.

Captain Martin claimed the individuals with having conspired to manipulate the aircraft industry, although they had denied him, had made plane accidents his best documented government reports concerning him, etc.

The original action was begun some time ago and the petition since has been amended, but Justice Baldwin still considers the defendant too vague and indefinite to meet the requirements of the law without regard to civil procedure.

Among the defendants were the General Motor Corp., Pfeiffer Motor Car Co., Glidden & Morris, Co., Max Mason, M. P. Feltz, Chief of Air Service; Howard E. Coffin, Rear Admiral William A. Moffett, Brasfield Crossley, Wright Aeronautical Corp., Fairey Bros. Corp., Curtis Aeroplane & Motor Co., Goodyear Tire & Rubber Co. and the Aeromarine Chamber of Commerce.

Wright Engines in Italy

The Italian air department has purchased, for experimental purposes, a Wright T-3 and a Wright J-5 radial engine.



Gen. C. S. Thompson, Secretary of State for Air in the new British Cabinet.

Sale of Planes Halted

An injunction restraining M. Epstein of Norfolk, F. G. Brooks of Baltimore, and Jack Elliott of Pasadena, Calif., from selling aircraft to the United States, which injunction was obtained on Feb. 10 in Federal court at Norfolk, Va., by United States District Attorney Fred W. Klar.

It is charged by the District Attorney that the respondents will, if allowed to sell a number of seaplanes, bought by Epstein at public auction at Hampton Roads naval supply station, to the Canadian government, violate conditions of their contract of sale.

The Hon. James Lyons, Minister of Lands and Forests for Ontario, when informed of the injunction, advised that Mr. Elliott's contract was cancelled prior to the injunction.

"Since time ago," Mr. Lyons said, "we had applied for tenders for thirteen seaplanes for patrolling and border crossing, and the tender of Jack V. Elliott, Ltd., of Pasadena, was accepted. Elliott, whom I had never met until the other day, was endeavoring to obtain these United States Navy machines, but after taking the machine up with Washington I learned that he could not get them, so I rescinded our contract with him."

Death of Dr. Bendemann

Dr. Friedrich Bendemann, one of the foremost aerodynamics in the world, died in Germany on Dec. 21 last. The deceased, at the time of his death, was attached to the German Air Department in an advisory capacity.

Dr. Bendemann directed his aerodynamic investigations at the early days of aviation at the aeronautical observatory at Langenselbold. In 1912 he was appointed chief of the German aerodynamic division at Altenbergen, where he conducted extensive experiments on aircraft.

Among the distinguished aerodynamicists of the world, Dr. Bendemann stands with the German, Dr. Gustav Pfeiffer, Walter Göttsche, Oberst G. Martini, Dr. Max Mason, M. P. Feltz, Chief of Air Service; Howard E. Coffin, Rear Admiral William A. Moffett, Brasfield Crossley, Wright Aeronautical Corp., Fairey Bros. Corp., Curtis Aeroplane & Motor Co., Goodyear Tire & Rubber Co. and the Aeromarine Chamber of Commerce.

More British Aircraft Carriers

According to the Morning Post of London, the two British big-gun carriers Glorious and Courageous, of 15,000-ton displacement each, will shortly be converted into aircraft carriers as the Devonport naval dockyard. The two vessels are successors of the巡洋舰 carrier *Furious*.

Brazilian Air Force

The Brazilian air force is divided into two distinct branches, one as controlled by the army and navy, respectively. The army air service is French-trained and is almost exclusively equipped with French material. Biplane planes are used for bombing and observation work, and biplane planes for pursuit work. The organization table for 1934 provides for one bombing group of three squadrons, equipped with Douglas biplane bombers, and one corps observation unit. The two general support groups are located at Rio de Janeiro, and the central flying school is at Rio de Janeiro. The average allowance per squadron is ten machines.

The naval air service is largely equipped with American aircraft and includes twelve R-11s moored impellers and twelve Curtiss N-9N float planes for search work. For observation work biplane Savoia biplane boats, equipped with 300-hp SPA engines, are available in addition to six odd assortments of small French and British seaplanes. The naval air service is located at Governador Island, in the Bay of Rio de Janeiro, but it will be moved to Santos, where an additional establishment is being built.

The Brazilian naval air service is being reorganized by Claude T. G. Elston, U.S.N.C., air member of the American Naval Mission on charge of Admiral C. T. Vogelbusch, which went to Brazil in December, 1932.

New Dornier Plane

The Deutsche Metallflugzeug company of Friedlandshausen, Germany, recently produced a small three-seater landplane with an 80-hp Maybach radial air cooled motor which differs considerably from the Dornier monoplane.

Dr. Dornier Rypke, on the new ship is relied on as an adaptator for land use of the biplane *Zeppelin* sport flying boat produced by the same constructor. The new ship looks like a flying boat on wheels, with the pilot and passenger sitting in a closed metal cabin and the engine with a tractor propeller being carried in the center of the single raked wing.

Like all the other Dornier machines, the Span is almost entirely built of duralumin, used being used only in the heavily stressed members.

The principal characteristics of this ship are: Span, 22 ft.; overall length, 22 ft., weight empty, 860 lb.; gross weight loaded, 1,600 lb.; maximum speed, 87 mph.; starting speed, 74 ft./sec.; ceiling, 11,500 ft.

German Light Plane Experiments

Arthur Martini, the well known German glider pilot, has lately been making experiments in the Rhine hills with his glider Storch fitted with a small auxiliary engine. The Storch is a very efficient monoplane and is to be recommended for the gliding stage of the Autogyro. The engine used in the experiments was a two cylinder horizontal opposed two stroke type of 500 cc. as is commonly known as the Bebe II and manufactured by the Norddeutsche Maschinenfabrik of Frankfurt, Holstein, and develops approximately 40 brake horsepower. The engine is to be mounted in the machine so it can easily be removed, if it is desired to use the plane as a pure glider.

Although the Storch flew quite well with this disastrous power plant, it seems to be somewhat underpowered and may be considered as a glider fitted with an auxiliary engine rather than as a light plane.

International Air Transport

Arrangements for air lines running in conjunction throughout Europe during the recent year were agreed to at the conference of the International Air Traffic Association, held at The Hague, Holland, late in January. Representatives of 20 states were present.

New Czechoslovakian Engine

The Walter engine company of Prague has recently produced a four-cylinder radial air-cooled engine which develops 60 hp at 1400 rpm. and weighs 194 lb. The fuel consumption is 0.51 lb./hp hr. The first of these engines has been bought by the Czechoslovakian air service.

The New British Air Secretaries

The following biographical notes are on hand regarding Sir Gen. Christopher Thomson, the new British Secretary of State for Air and President of the Air Council. General Thomson, born in 1878, the son of Maj.-Gen. David Thomson, and was commissioned in the Royal Engineers. He served in the Malakand and South African campaigns, passed through the Staff College, and was on the staff of the War Office from 1911-14. On the outbreak of war, he went to France as a Major in the First Army Corps under Douglas Haig, and in 1915 became military attaché to Roumania and later head of the military commission there. He visited Russia both before and after the February revolution. Thereafter he returned to active service and served as chief of the General Staff, which was the first to take over Territorials. From May, 1918, to July, 1920, he was at Versailles as British military representative on the Supreme War Council.

The Under Secretary of State for Air in the new British Cabinet is Wilson Leadbeater, mentioned previously, who has prominently been identified with the British Labor Party.

French Air Transport Competition

The great competition for the French air transport competition will take place this year later in August than last year, and with double prizes. The competition is endorsed by the French air department with one million francs of prizes which will be apportioned as follows: 500,000 francs for performance, 125,000 francs for improvements in equipment, and 75,000 francs for organization purposes. The previous year will consist of four eight flights at Le Bourget, with each of the entries stopped in turn. The qualification trials will be held over a 1,000 m. circuit, between Paris and Bourges.

The distance will be qualified in this race by the formula $\frac{P}{T^2}$, in which P is the payload, T the commercial speed, and F the horsepower. In other words, the French Air Transport participants seek to encourage machines with the highest tonnage for a given fuel consumption.

An Interesting Prize

Montrouge, the well known French tire manufacturer, and makers of steampipes, offered in 1928 a prize of 100,000 francs for the first airplane that would have a speed range of from 18 mph to 72 mph and land within a circle of 100 ft. diameter. The compulsory useful load is 275 lb., including the pilot.

This prize was not run competitively in 1928, but as it was not won it has since been offered to contestants. In view of the great difficulty which seems to be involved in the construction of such a machine, M. Michelin has offered in addition a prize of 20,000 francs for a pre-competition of the same nature.

British Air Transport Subsidy

The one million pound subsidy scheme, under which the newly created Imperial Air Transport Company will operate under supervision of the British Air Ministry, will operate in several installments over a period of ten years. The subsidy will amount to £125,000 per year for the first four years, £122,000 the fifth year, £100,000 the sixth year, £80,000 the seventh year, £50,000 the eighth year, £30,000 the ninth year, and £20,000 the tenth year.

Italy in the Schneider Race

It is reported from Italy that three Italian manufacturers will compete for the honor of being represented on the Italian team which will challenge the United States for the Schneider Cup this year. These manufacturers are said to be Maserati, Riva, and Fiat, and it is believed that the Italian entries will be equipped with the new 450-hp Fiat engine.

Autogyro Performs Again

The Le Cirrus Autogyro, a helicopter-like craft with stabilizers and a large rotating case on a vertical shaft, which was described some time ago in AVIATION, recently made a flight of 3000 ft. length with a pilot and passenger at Cerone-Ventimiglia, in Spain.

Belgium has Strong Air Force

The Belgian air service was very active during the past year, as may be seen from the fact that from Jan. 1 to Nov. 30, the total flying time of Belgian military planes was approximately 3,000 hr., representing a total distance of 2,500,000 km. During the same period 200 civilian air pilot's certificates were delivered to students.

Under new organization tables now being prepared, the Belgian air force will consist of an air corps of three regiments, each comprising of either two, three, or four groups. As now constituted, the Belgian air force comprises six squadrons of dive-bomber aircraft, three observation squadrons, three pursuit squadrons, three bombing squadrons, three camouflaging squadrons, and three training squadrons, in addition to four liaison units.

It will be seen from these figures that Belgium, a country of 4,300,000 inhabitants, has 21 aircraft squadrons, an equal 34 of our own Army Air Service, which has a population of over 100,000,000 people and occupying possession 4,000 mi. from the continental United States to defend. The record is obvious.

New Helicopter Record

A new duration record for helicopters was made on Jan. 16 when the Peugeot helicopter, piloted by its inventor, remained aloft 6 min. 35 sec. The record was made in the course of a series of flights for the first one kilometer circuit flight which had been planned by the Aero Club of France with a prize of 10,000 francs.

M. Peugeot has for some time been practicing strength and endurance flights with his machine, with a view to winning this prize. On Jan. 21 he covered a distance of 1,000 ft. in 8 min. 31 sec. and on Jan. 29 he remained aloft 7 min. 51 sec. Observers state that the man would with the machine seem to be the pilot's link of tandemly with its controls, rather than any inherent desire of the helicopter. M. Peugeot is not a trained pilot and is training himself to fly on his helicopter.

New Italian Observation Seaplane

A new Italian observation seaplane of the flying boat type, which was built by the Savoia company, has successfully been tested and is now represented at the Paris exhibition. The machine, known as type 2557, with a useful load of 1,169 lb. made a top speed of 235.8 mph for and clashed 330 ft. at 4 min. 24 sec., 1,000 ft. in 9 min. 30 sec.; 16,000 ft. in 17 min. 12.000 ft. in 29 min. 46 sec., and 35,000 ft. in 45 min. The observation ceiling is 37,000 ft. At 33,000 ft. the speed of the machine was 128 mph.

Research in the field was fitted with an Isotta Fraschini V8 800 hp. engine, which is practically obsolete, the constructors hope to better the performance considerably when the plane will have been fitted with an up-to-date power plant.

Airship Station To Be Scrapped

The airship station at Howdon, Yorkshire, England, which some American air officers will remember from the days of the war, is shortly to be demolished. All the buildings and machinery will be sold by auction. The buildings comprise one shed, 720 ft. long, and two 30 ft. long, and two 35 ft. long. It is expected that the work of demolition will last at least a year.

As it stands the British government has stopped all its airship activities since a short time after the Armistice, as the Royal Air Force does not seem to see any military use for airships, and particularly those of the large rigid type.

Paris to New York Flight Attempts

A non-stop flight from Paris to New York is to be attempted during the coming summer with a monoplane designed by Louis de Monzie, the French aeronautic contractor. This ship will have a single cylinder water-cooled 300 hp. in span and 7 ft. at the wing root, where it will accommodate the pilot, crew, and fuel supply. The power plant will consist of three 400 hp. Lorraine-Dietrich engines, and the speed is expected to be about 130 mi./hr. The landing gear will fold up onto the machine when in flight.

British Reserve Training Schools

The British air department has made arrangements with four private firms for giving refresher courses to reserve officers in the Royal Air Force. These schools are operated at the following places: Sing Lane, near London, operated by the de Havilland Co.; Duxford, (Cambridgeshire), operated by Armstrong Whitworth, Filton (Westminster), operated by the Bristol Aeroplane Co.; Brooklands, Hounslow, operated by the Blackburn Aeroplane & Motor Co., for seaplane and seaplane pilot; Aldershot Park, near Manchester, operated by A. V. Roe & Co.; and Brookfield, near Glasgow, operated by the Willow Aeroplane Co.

Italian Aircraft Carrier

The first Italian aircraft carrier especially built for the navy was recently launched in Spain. This vessel, called the *Murphy*, has a displacement of 4,675 tons. Oil-burning engines, developing 12,000 hp., give it a speed of 22 knots. The ship is of the flush deck type, the take-off and landing platforms extending from stern to stern. The ship will hold the seaplane associated and ready for action, and additional planes described in the hull. A complete workshop is also included in the equipment of the ship.

The *Murphy* will be the first modern aircraft carrier of the Italian navy.

Aircraft Carriers for the French Navy

The question of aircraft carriers is receiving considerable attention in the French press. The point particularly discussed is whether it is preferable to have a combination type of aircraft carrier and light cruiser or an all-aircraft type of aircraft carrier. Expert opinion is, as a rule, favorable to the first solution.

England to Ireland Air Service

As a result of experiments conducted by the British Air Ministry last year, in which mail was carried by air between Plymouth, Manchester, and Belfast, it is understood that the De Havilland Aircraft Company will shortly operate a daily air service between Manchester and Belfast for passengers and merchandise. The planes used in this service will be the DH9A type.

Aero Club Jubilee

The Aero Club of France recently celebrated the twenty-fifth anniversary of its foundation with a banquet which 600 guests, including many notable personalities of the aviation world, attended. Among the guests of honor were Marshal Foch, General Gouraud, Beaumarchais, and Briand, and three Marshals representing the French government.

Editha Fosters Air Transport

The 1934 budget of Editha contains an appropriation of 16,000,000 Edithian marks for a subsidy to the "Aeroflot" company. This concern has a monopoly of air traffic in Eastern Europe and undertakes to organize whatever air lines are required by the Ministers of Communications. At present, it is operating the Kiev-Han and Brest-Berlin-Leningrad line.

Swiss Entries for Gordon Bennett Race

The Aero Club of Switzerland has decided to enter two balloons in the forthcoming Gordon Bennett International Balloon Race, which will be held June 30 next at Brussels. The pilot-aeronauts of the Swiss balloons will be Captain Armand and Captain Armand and Armand.

New Altitude Record

A new altitude record for weightlessness was made Jan. 24 by the Russian aviator, Otto Bakhod, at El Palomar, and Buenos Aires, Argentina. He reached an altitude of 10,000 ft. with a record load of 400 kg. The plane was a Pafkin G4, equipped with a Napier-Dyson 650 hp. engine.

First Polish Seaplane

The first seaplane built in Poland was recently produced by the Polish aircraft factory for the Polish naval air service. The plane, which is of the Macchi type, was built under license agreement with the Italian firm. The plane is equipped with a Fiat A.12 160 hp engine.

UNITED STATES AIR FORCES

U. S. ARMY AIR SERVICE

Army Orders

First Lt. Mark H. Redman, A.S., McCook Field, to A.S., Phillips Department, Manila, transports leaving New York via France April 24 and May 2, respectively.

— Capt. Elmer Kelly relieved 28th Inf., Fort Sam Houston, March 1, and detailed A.S., Primary Flying School, Brooks Field, for training.

First Lt. Thomas Brooks, A.S., Mitchell Field, from Brooks to permanent duty, Brooks Field.

Twenty-eight days leave to Sec. Laird, Cornelius E. O'Connor, to A.S., effective June 37.

Fist Lt. Earl R. Schubert, A.S., from training Balloon and Airship School, Scott Field, to duty, that station.

Leave granted Capt. Charles H. Danforth, A. S., extended one day.

Laird, F. O. Hunter Leaves Hospital

Capt. Frank Hunter A.S., whose back was broken when he airplane crashed near Claude, La., Feb. 12, left the Ground Hospital at Buffalo, N. Y. on Feb. 14 for the Walter Reed



At Service Year Co.

The Army Air Service's World fleet, headed by General Parrott, call on President Coolidge, who wished them good luck on their world circling attempt. (L. to R.) Capt. A. L. Harvey, H. H. Ogden and A. C. Turner; Capt. L. D. Schuler, General Parrott, Capt. L. H. Smith, L. P. Arnold, Eric Nelson and L. L. Woods.

Capt. William H. Hale, A.S. (left), Advanced Flying School, Kelly Field, to Langley Field, after leave granted. — Capt. Charles D. McAlister, 29th FA, Camp Lewis, in U.S. Primary Flying School, Brooks Field, for training. First Lt. Stiles C. Hyndman, A.S., Mitchell Field, to A.S., Phillips' Canal Department, Transport sailing New York April 24.

Colonel Lee, 2d, assigning First Lt. Wilkins, N. Am., A.S., to duty Kelly Field, resolved. — First Lt. Duran, A.S., Kelly Field, to A.S., Phillips Department, Manila, transport sailing San Francisco May 1. — Lieutenant See Long, Carlyle West Grayson, A.S., assigned to U.S. accepted. — First Lt. Charles B. McElroy, A.S., instructor X-44, St. Paul, Minn., to A.S., Phillips Department, Manila, transport sailing San Francisco May 5.

First Lt. James G. Taylor, A.S., Brooks Field, to A.S., Phillips Department, Manila, after month's leave from 16th Inf., transport sailing San Francisco July 10. — First Lt. Robert W. Douglass, Jr., 28th Inf., Fort Sam Houston, to A.S., Primary Flying School, Brooks Field, for training, effective March 1.

First Lt. Eddie A. Whalen, 28th Inf., Fort Sam Houston, to A.S., Primary Flying School, Brooks Field, for training, effective March 1.

The fifth Service Squadron insignia, Camp Nichols, Brook, P. I., which was designed by 1st Lt. A. W. Venables, A.S., has recently been completed and mounted. This insignia, which will be soon as practicable be placed on all places assigned to this organization, is composed of an outer circle of gold, with a white center and displaying four small stars representing a larger star. The latter represents a service squadron, the four smaller ones as attack, pursuit, bombardment and observation squadrons, respectively.

New Squadron Insignia

The fifth Service Squadron insignia, Camp Nichols, Brook, P. I., which was designed by 1st Lt. A. W. Venables, A.S., has recently been completed and mounted. This insignia, which will be soon as practicable be placed on all places assigned to this organization, is composed of an outer circle of gold, with a white center and displaying four small stars representing a larger star. The latter represents a service squadron, the four smaller ones as attack, pursuit, bombardment and observation squadrons, respectively.

Mechanics Chosen for World Flight

The following aviation mechanics have been selected for the Round-the-World Flight, to start from Los Angeles March 15. They have been ordered to report immediately to Langley Field, Va., for intensive training for their respective duties:

Tech. Sgt. Arthur H. Turner, of the 21st Observation Squadron at Camp Field, Calif.;
Staff Sgt. Henry H. Ogleton, 52d Service Squadron, Bellbridge Field, Mich.

Staff Sgt. Alvin L. Huray of the Air Service Technical School, Chanute Field, Ill.

Staff Sgt. Abraham L. Huray of the 60th Observation Squadron, Bolling Field, D. C.

These officers were selected because they are designated for the same mission. From the works, four will be chosen to accompany and care for the four planes the remaining four being held in reserve as alternates in case of engine or accident.

The four members of the expedition will be tested for American claim which selection has not yet been made.

Obituary Notices

ELIAS HENRY WILLIS—Born in Iowa, Jan. 25, 1886; 2nd Lt., U.S.A., 1907; 1st Lt., 1917; 1st Lt., 1919; 1st Lt., 1921; 1st Lt., 1922; Captain, Jan. 26, 1923; Captain, Aug. 2, 1923; died in Chicago, Ill., Feb. 1, 1928; buried in Forest Home Cemetery, Bellwood, Ill. Son of Elias H. Willis and Anna F. Willis; brother of Elias H. Willis, pilot, deceased; son of Elias H. Willis, graduate of Air Service Pilot's School and Air Service Bacteriological School, 1921.

He was with the 10th Infantry at Fort Riley, Mo., from Dec. 15, 1917, to April 15, 1919, at Camp Devens, Mass., to May 27, 1919; as major in 1919, he was assigned to Germany and returned to the United States in June 1920; 1920, at Corbinian Field, Italy; 1921, at Langley Field, Va., to Dec. 15, 1922, when he was assigned to the 60th Observation Squadron, Bolling Field, D. C.; 1923, to Dec. 15, 1923, at Chanute Field, Ill.

He was transferred to Headquarters Establishment, Bolling School Group, A. S., Brooks Field, Tex., and served from Sept. 14, 1927 to Jan. 26, 1928, when he died near Brooks Field, Tex.

Changes of Status and Station

The following changes of status and station of non-commissioned officers at the Air Service base have been reported recently:

Tech. Sgt. Charles M. Stiles, Middlefield, Air Intermediate Depot, Middlefield, Pa., appointed a master sergeant Jan. 7; Master Sgt. Clyde W. Strode, Langley Field, Hampton, Va., promoted to Captain, Camp Department; Staff Sgt. John W. White, Mitchell Field, N. Y., appointed a master sergeant Jan. 7; Tech. Sgt. John E. Powers, Staff Sgt. George F. Farnier and George H. Crowley, A. M., Langley Field, promoted to their former grades, technical sergeant, and endorsed to Master Field by sergeant.

New Reserve Corps Officers

Twenty-four young cadets, who have completed flying training at the Air Service Advanced Flying School, Kelly Field, San Antonio, have been recommended for appointment as second lieutenants, Army Aviator Officers. Reserve Corps Major Gen. Davis' orders have been forwarded to the Reserve Corps, and will be duly referred to sergeant pilots.

U. S. NAVAL AVIATION

Aircraft Squadrons in Fleet Maneuvers

The Aircraft Squadrons of the Battle and Bombing Fleets, and the Aviation Division of the Marine Corps Expeditionary Force are busily engaged in the combined maneuvers of the Fleet.

The Aircraft Squadrons Battle Fleet left the Naval Air Station at Coco Solo on Jan. 20 for Cuban ports, where the other aviation organizations are based. Before leaving the Canal Zone the squadrons participated in the operations required in the passage of the Battle Fleet from the Pacific to the Atlantic side of the Canal. A daylight to dark

patrol was maintained from Jan. 24 to 25 to insure the safe passage of the Fleet through the Canal. This work was done in conjunction with the aircraft organizations of the Army Air Corps, and a similar compensation was obtained at all times. A total of forty-five Navy planes took part in these operations. The U. S. Air Service and Guards are with the Aircraft Squadrons Battle Fleet as tenders.

The Aircraft Squadron Scouting Fleet arrived at Culebra Point Roads, on Jan. 25 and 26, accompanied by the U. S. Wright, Standard, Sandspur and Test air tenders. The organization, consisting of a total of twenty-seven planes for the entire distance from Hampton Roads to Puerto Rico, about 3,000 miles, with only one plane failing to make the entire flight.

One plane, because of damage sustained in a forced landing, was taken on board the U. S. S. Test at Charleston, S. C., and was carried by that ship as her way South. The tenders took part in the defense of Cuba against the attack of the Fleet.

On Feb. 1, Lt. Langley, aircraft carrier, arrived at Culebra Point Roads, on Jan. 31. Fourteen naval DT-type torpedo and bombing planes were hoisted overboard and stored ready for use in the Fleet maneuvers. In the meantime, en route to the approach of the Fleet to Culebra, P. R., the flying planes of the Langley took to the air to attack the two squadrons of F3A's that came to oppose them. The flying planes harassed the F3A's, attacking any plane that looked suspicious. The Langley had planes on the air as a very important part of the time these were arrested in the Caribbean.

The Marine Corps planes took a very active part in the defense of Cuba against the Fleet. The activities of the planes consisted in making reconnaissance flights when the Fleet was approaching and observation flights after the arrival of the Fleet in the vicinity of their objective. Basing over the rocky islands, and all possible landing fields were used so as to cover the planes of the attacking Fleet from effecting landings in the vicinity of Cuba. During the actual attack of the Fleet the planes of the Marine Corps Fleet harassed a torpedo attack against the aircraft carrier Langley and harried the strength of the enemy force to land on the next 100-mile stretch of coast opposite Culebra. The work with the defending tanks in their efforts to hedge them. Radar communication between the planes and the ground forces was maintained very successfully during the entire operations.

Naval Orders

Lt. Comdr. Ezra G. Allen, det. Bu. Navigation to Bu. Aviation.

Lt. George F. Chapman, upon discharge from Nav. Eng. Bureau, to duty day Nav. Aircraft Factory, Philadelphia.

Lt. Maurice Jones, (MC) det. U. S. Paisano, to U. S. Pyrm.

J. John Ross, det. U. S. Pyrm. to U. S. Paisano.

Lt. Ralph N. Olson, det. VF Sqdn. I, to Bu. Aeromechanics, to 1928-29 as master data recorder.

Lt. Sigmund H. Marston, det. Nav. Av. Sta. Anacapa, D. C., to Bu. Aviation.

Lt. Carl Curtis D. Palmer, det. Nav. Av. Sta. Anacapa, D. C., to T. S. Shandwick and addl. duty Nav. Av. Sta. Lahaina.

Stack Thomas H. Cormack, det. U. S. Wright to U. S. Bu. Aeromech.

Stack Fred B. Lewis, det. Nav. Av. Sta. Hampton Roads, to U. S. Aeromech.

Pvt. Cpl. Anthony E. Charcharian, det. Nav. Op. Base Rio Verde, to U. S. Aeromech.

Pvt. Cpl. John G. Charcharian, det. Nav. Op. Base San Diego, to Nav. Av. Sta. San Diego.

Japanese Admiral and Staff Visit Hampton Roads

Two Japanese Naval Officers visited the Naval Air Station at Hampton Roads on Jan. 21. They were taken to the station as an inspection tour by the commanding officer. The visitors were Vice Adm. R. H. Ito, Capt. I. Yamamoto, Capt. K. Hosono and Lt. Cmdr. K. Takahashi.



78 *Sixty Morane in the West Indies*—Marine Corps seaplanes, DT type, on the dock at Culebra Island, Puerto Rico, where the Marine Expeditionary Force is engaged in tender maneuvers with the United States Fleet.

Assistance to British World Fleet

The Secretary of the Navy has addressed the following letter of introduction to James L. E. Brown, late of Lt. Col. L. E. Brown, late of the Royal Engineers, and his present status:

To the United States Naval Service: February, 1928
This will introduce to you Lt. Col. L. E. Brown, late of the Royal Engineers, who is making preparations for a flight around the world in the summer of 1929, in command of the "Squadron of the British Royal Air Force."

"The British government is taking a great interest in the progress of this attempt and it is the desire of the department to cooperate in every way possible. Accordingly, it is requested that he be entrusted to Lt. Colonel Brown, Squadron Leader MacLaren and others who are participating with him in preparation for the flight and the flight itself every manner, and assistance possible consistent with the public interest. They have the best wishes of the department and of the service for complete success in their undertaking."

"I desire to impress upon every officer and man in the U. S. Naval Service the high esteem of the department, to render the full assistance and cooperation to those participating in this flight."

Ernest Draper

Airship CT Deflated

The dirigible airship CT has made its last flight. Orders for her deflation have recently been sent by the Bureau of Aeronautics to the N. Y. M. S. Station at Hammonasset Beach.

In connection with the disassembly of the craft, the Bureau is requesting that section seven: "It would seem that the most likely possibility of a ship that could be called a power is hydrogen over air station." The royal arrival day in the life of this ship was undoubtedly a cold December day in 1925 when she became the first airship in the world to successfully be inflated with helium. After proving in the world the practicability of helium, the CT was used in making experiments, presented distributions tests. These tests were only initial conducted.

The lighter-than-air division of the station has been testing repetitive and nonrepetitive valves such as are used on the rigid Riesenblauds. A free balloon was used in the tests for the purpose of ascertaining the rate of discharge of gas by the valve at different pressures and different periods of time.

Class XIX at Pensacola Completes Training

1—XIX, for Naval Aviation, composed of twenty-eight Navy officers, completed their Month-long course and their training Feb. 14, 1928, to word received from the Naval Air Station at Pensacola. Upon graduation as Naval Aviators, eighteen of these Naval officers will commence training as flying plane pilots and ten as torpedo plane pilots.

CALENDAR OF AERONAUTICAL EVENTS

March 7-8.

Curtiss Marine Flying Trophy Race and Flying Meet, Miami, Fla.
Start of World Flight of the U. S. Army Air Service, Los Angeles.

Close date for papers submitted to Royal Aeronautical Society of Great Britain for the R.38 Memorial Prize, National Balloon Race, San Antonio, Tex.

April 23.

International Aircraft Exposition, Prague, Czechoslovakia.
Garden Route International Balloon Race, Brussels, Belgium.

June 15.

Anual FAI Conference, Paris, France.

June 22.

Commodore Roosevelt International Cup Race for high speed aircraft, Issy-les-Moulineaux, France.

July 3-6.

Zonal International Airplane Efficiency Race, Paris, France.

August.

"Tour de France des Aviateurs," International Round-France race for light airplanes.

Oct. 2-4.

International Air Races, Ind. Palms Trophy Race, Dayton, Ohio.

Oct. 24-25.

Schneider Cup Race, Bruxelles.

Dec. 17.

Twentieth anniversary of the first successful airplane flight.

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Agents: 107, 111, 113, 115, 117, 119, 121, 123, 125, 127, 129, 131, 133, 135, 137, 139, 141, 143, 145, 147, 149, 151, 153, 155, 157, 159, 161, 163, 165, 167, 169, 171, 173, 175, 177, 179, 181, 183, 185, 187, 189, 191, 193, 195, 197, 199, 201, 203, 205, 207, 209, 211, 213, 215, 217, 219, 221, 223, 225, 227, 229, 231, 233, 235, 237, 239, 241, 243, 245, 247, 249, 251, 253, 255, 257, 259, 261, 263, 265, 267, 269, 271, 273, 275, 277, 279, 281, 283, 285, 287, 289, 291, 293, 295, 297, 299, 301, 303, 305, 307, 309, 311, 313, 315, 317, 319, 321, 323, 325, 327, 329, 331, 333, 335, 337, 339, 341, 343, 345, 347, 349, 351, 353, 355, 357, 359, 361, 363, 365, 367, 369, 371, 373, 375, 377, 379, 381, 383, 385, 387, 389, 391, 393, 395, 397, 399, 401, 403, 405, 407, 409, 411, 413, 415, 417, 419, 421, 423, 425, 427, 429, 431, 433, 435, 437, 439, 441, 443, 445, 447, 449, 451, 453, 455, 457, 459, 461, 463, 465, 467, 469, 471, 473, 475, 477, 479, 481, 483, 485, 487, 489, 491, 493, 495, 497, 499, 501, 503, 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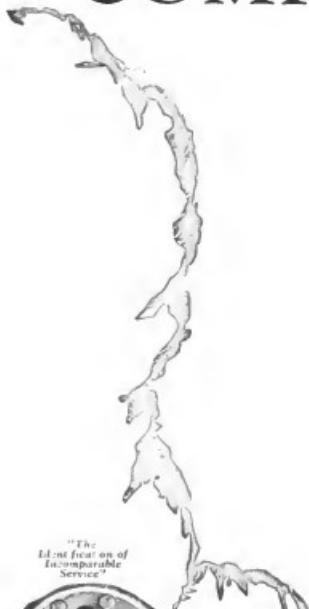
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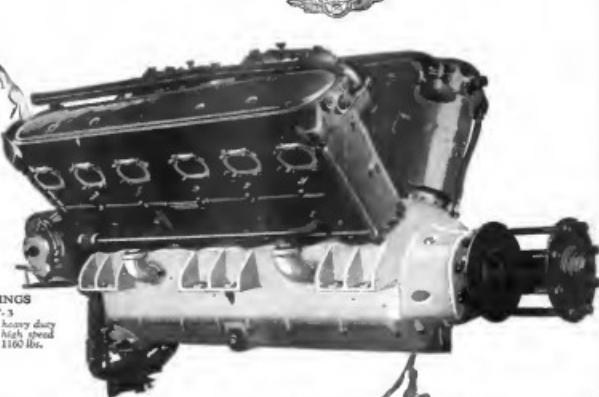


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